

**Amendments to the Drawings:**

The attached drawing sheets include new FIGs. 9-15 in connection with the attached Substitute Specification.

Attachment: New/Replacement Sheets (7 sheets)

## **REMARKS**

Applicants respectfully traverse and request reconsideration.

Claims 5, 13 and 21 have been canceled.

Applicants respectfully submit herewith a Substitute Specification that includes subject matter of a co-pending application (serial no. 10/730,965) that was incorporated by reference in its entirety in the originally filed application.

Claims 1, 4-9, 12-17 and 20-25 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Rosman in view of U.S. Publication No. 2002/0145612 (Blythe et al.) and U.S. Patent No. 6,557,083 (Sperber et al.). The independent claims have been amended to include dependent claim subject matter. For example, amended claim 1 requires a graphics chip that in addition to having a backend that includes multiple parallel pipelines wherein geometry is determined to locate in a portion of an output screen defined by a tile, also requires that each parallel pipeline further includes among other things, a unified shader. (See for example, page 13 of Specification). The unified shader performs both color shading and texture address shading. Operations whether for color shading or texture shading may loop back into the shader to be combined with other operations. The office action cites the “shadow register” of Rosman as allegedly being a unified shader citing column 6, lines 46-64. However, Applicants respectfully submit that the reference does not teach what is alleged. The cited portion instead refers to register 42 and 44 and register 44 include shadow registers. Shadow registers are simply registers and not a unified shader nor does a register perform shading operations. Applicants respectfully submit that the claim language has been misapprehended. Since the cited portion does not teach the claimed subject matter, Applicants respectfully submit that the independent claims are in condition for allowance.

In addition, the dependent claims are novel and non-obvious. For example, but not by way of limitation, claims 7 and 8 require a Z buffer logic unit that interfaces with a scan converter through a hierarchical Z interface as well as an early Z interface. As such, two types of Z or depth tests interfaces are coupled to the scan converter. Claim 8 requires that the unified shader interfaces to the Z buffer logic through a late Z interface. No such structure is taught or suggested by the Rosman reference as alleged. In fact, no portion of Rosman has been identified as teaching any of this subject matter. The claims describe a particular depth function structure occurring in connection with different structure and points in a pipeline none of which appears to be taught or suggested in the Rosman reference. As such, Applicants respectfully submit that the claims are in condition for allowance.

If the rejection is maintained, Applicants respectfully request a showing by column and line number of where the Rosman reference teaches this structure since it does not appear to be taught in the reference.

Applicants respectfully submit that the claims are in condition for allowance and respectfully request that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

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